UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,104	08/08/2003	Irene M. Patton	8440-PA01	5086

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ART UNIT	PAPER NUMBER
3715	

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/637,104	PATTON ET AL.
	Examiner	Art Unit
	Joshua D. Crabtree	3715

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 August 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-36</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-36</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>08 August 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　1.☐ Certified copies of the priority documents have been received.

　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date <u>11/10/03</u>.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1.   Claim 36 is rejected under 35 U.S.C. 102(b) as being anticipated by Engelbrite (US

6,126,447).

With regard to the limitation of a display medium and a selected text passage

displayed on the display medium, Engelbrite discloses typing and coloring words using

an art/graphics computer program (Col. 7: 25 – Col. 8: 20).

With regard to the limitation of the text passage having a first unique color

applied to all vowel letters and letters having vowel-like pronunciation, and a second

unique color-coding applied to all consonants having non-standard pronunciations,

Engelbrite discloses color-coding for vowels, and using the color black for all

consonants (Figs. 1-4; See Claims 1 and 2).

With regard to the limitation of color-coding applied to letters having vowel or

vowel-like sounds comprising predetermined colors in which the word for each color

contains the same vowel sound as the vowel or vowel-like sound it represents,

Engelbrite discloses this feature (Table 1).

With regard to the limitation of one of the color codings comprising a background color for a letter of a different color and the other of said color codings comprising a color applied to a letter itself, Engelbrite discloses color-coding for letters applied to a white background (Col. 5: 8-33).

2.   Claims 6-8, 12, 13, 17, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Rai (US 6,077,080).

With regard to claim 6, and the limitation of a computer with a display means and input means for receiving selected text passages and displaying the uncoded passage on the screen to the user, Rai discloses this feature (Col. 7: 57-Col. 8: 18).

With regard to the limitation of the program comprising means for displaying a color-coding menu on the display means for reference by the user in applying color to words in the selected text passage, Rai discloses this feature (Col. 9: 61-67; Figs. 1-6; Col. 2: 56 – Col. 6: 47)

With regard to the limitation of user control means for color-coding of letters in words which are not already stored in the dictionary, the control means comprising means for associating a selected letter or group of letters in the text with a color coding in the menu corresponding to the proper pronunciation of the selected letter or group in the word in which they are located, Rai discloses using computer software to perform the translation of the text (Col. 9: 61-67). Rai discloses using dictionary software to enhance learning and practice experiences. Rai also teaches using word processing software to produce text (Col. 7: 57 – Col. 8: 6).

With regard to the limitation of a means for applying color to the selected letter or group of letters in the displayed text according to the associated color-coding, Rai discloses this feature (Col. 9: 47-67; See Claim 3)

With regard to the limitation of a program associated with the computer for searching uncoded text and associating any words in the text which are stored in the dictionary with the corresponding color coded word and displaying the color coded words in the text on the display means, Rai discloses this feature (Col. 7: 57 – Col. 8: 18).

With regard to the limitation of a means for displaying the text passage with all the words color coded after all the words have been either associated with words already stored in the dictionary in color coded form or color coded by the user, Rai discloses that the invention may be embodied in an analog or digital display (Col. 9: 58-67; Col. 7: 57 – Col. 8: 6). Rai discloses the implementation of dictionary software, as described above.

With regard to claim 7, and the limitation of a color coding menu including a series of double letters representing single phoneme vowel sounds and an associated colored area for each double letter, the word for the color in each color box containing the same spoken sound as the voiced vowel phoneme it represents, Rai discloses a color this feature (Fig. 8; See "bee" in Fig. 1; See "deer" and "zoo" in Col. 2: 36-55).

With regard to claim 8, Rai discloses single phoneme vowel sounds, represented by double letters, associated with colors (Col. 3: 16-58). Rai does not disclose the specific colors recited in claim 8. However, Rai does disclose that the invention is not limited to

the specific colors disclosed, and that other colors may be may be used as well (Col. 7: 50-55).

With regard to claim 12, and the limitation of a color-coding menu further comprising a series of letter groups representing diphthong vowel sounds and the associated color-coding for each diphthong, Rai discloses this feature (Col. 3: 13-15, 36-40).

With regard to claim 13, Rai does not disclose utilizing a background color containing a diphthong in the color name. Barton teaches utilizing tiles with background colors corresponding to the type of sound an element on the tile represents, as previously described.

With regard to claim 17, Rai discloses incorporating dictionary software, as previously described.

With regard to claim 18, and the limitation of a means for applying unique color-coding to single and double phoneme vowels, consonants having at least one non-standard pronunciation, and silent letters in words based on the pronunciation, Rai discloses that computer software may be used to implement the invention (Col. 7: 57 – Col. 8: 18).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3.   Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Rai (US 6,077,080) in view of Barton (US 2002/0119429).

With regard to claim 1, Rai discloses utilizing color-coded text in which all letters

associated with single phoneme vowels are represented in predetermined colors whose

color name contains the same phoneme as the vowel or vowel-like sound it represents

(Col. 2: 56-61).

With regard to the limitations of all consonants having non-standard

pronunciations represented in predetermined colors, and consonants having standard

pronunciations not being color-coded, Rai discloses that all consonants are black, and

those having uncommon sounds are represented by corresponding symbols underneath

the letter (Col. 4: 13 – Col. 5: 22). Rai does not disclose representing consonants having

uncommon sounds with a color. It appears that the invention of Rai, or applicant's

invention, would perform equally well with the feature of the color-coded consonants

with uncommon sounds, as recited by the applicant. The symbols of Rai serve the same

purpose as the color-coding recited by the applicant. Accordingly, it would have been

prima facie obvious to one of ordinary skill in the art at the time the invention was

made to have modified Rai such that it utilized the color-coding instead of symbols

underneath the letters, because such a modification would have been considered a mere

design consideration which fails to patentably distinguish over Rai.

Rai discloses vowel diphthongs represented letter character color having a color

name containing the same phoneme or vowel it represents (Col. 3: 13-15, 36-40). With

regard to the limitation of teaching the pronunciation of words in the text using color-

coding to indicate proper pronunciation, Rai discloses this feature (Col. 1: 38-43).

With regard to claims 1 and 4, Rai does not disclose utilizing a background color

containing a diphthong in the color name. Barton teaches utilizing tiles with

background colors corresponding to the type of sound an element on the tile represents

(Paragraph [0016]). Barton teaches that color-coding the tiles helps focus the attention of

the student on the letters in the middle of the word. It would have been obvious to one

of ordinary skill in the art at the time of invention to incorporate the teaching of Barton

into the invention of Rai in order to provide the aforementioned advantage.

With regard to claim 2, Rai teaches using a light gray tone for all silent letters.

With regard to claim 5, Rai does not disclose the limitation of removing all letters

associated with single phoneme vowels and vowel-like sounds, leaving only

background color displayed to indicate the vowel sound. Barton teaches using blank

colored tiles to raise awareness of sounds and make sounds visible (Paragraph [0033]).

It would have been obvious to one of ordinary skill in the art at the time of invention to

incorporate the teaching of Barton into the invention of Rai in order to provide a

phonetics instruction system in which the user is made aware of phonemics with blank

colored spaces.

4.   Claims 3 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Rai in view of Barton, as applied above, and further in view of Sakai (US 4,443,199).

With regard to claims 3 and 20, Rai, as modified by Barton, does not disclose

using a blank space to represent silent letters. Sakai teaches this feature (Col. 4: 29-40,

40-50). Sakai teaches that this feature allows the user to see that a silent letter exists in a

word (Col. 4: 30-34). It would have been obvious to one of ordinary skill in the art at the

time of invention to incorporate the teaching of Sakai into the invention of Rai, as

modified by Barton, in order to provide a phonetics instruction system in which blank

spaces are used to represent silent letters.

With regard to claim 19, the limitation of a means for providing a series of

alternative color coded displays, including a first display in which each vowel or vowel-

like sound, non-standard consonant sound, and silent letter in the text is color-coded,

Rai discloses that the invention may be embodied in an analog or digital display (Col. 9:

58-67; Col. 7: 57 – Col. 8: 6). Rai discloses color-coding of silent letters, as described

above. Rai, as modified by Barton, does not disclose at least one additionally display in

which the letter representing single phoneme vowels are removed to leave only a background color box representing the vowel sound. Sakai teaches this feature (Col. 4: 29-40, 40-50). Sakai teaches that this feature allows the user to see that a silent letter exists in a word (Col. 4: 30-34). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Sakai into the invention of Rai, as modified by Barton, in order to provide a phonetics instruction system in which blank spaces are used to represent silent letters.

With regard to claim 21, Rai does not disclose a means for providing a second additional display in which the vowel color coding is removed to display only consonant color coding, and a third additional display in which the consonant color coding is removed to display only vowel color coding. Barton teaches the concept of using background colors that correspond to phonemes (Paragraphs [0015 - 0016]). Barton also teaches the concept of removing the background color of a phoneme after phonemic awareness has been taught (Paragraph [0033]). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Barton into the invention of Rai in order to provide a phonetics instruction system in which the background color is removed from either vowels or consonants, once the user has demonstrated phonemic awareness.

With regard to claim 22, and the limitation of user input means for controlling the display on the screen, Rai discloses using a computer program to type text (Col. 8: 9-13).

5.   Claims 9-11, 14-16, and 23-31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over in Rai (US 6,077,080) in view of Rose (US 6,697,079).

With regard to claims 9 and 14, Rai does not disclose a control key for application

of the color-coding provided adjacent each double letter in the menu. Rose teaches

using a pointing device, keyboard, and/or other input device to designate a particular

color in the color palette and indicate the object to which the color is applied (Col. 3: 25-

37). It would have been obvious to one of ordinary skill in the art at the time of

invention to incorporate the teaching of Rose into the invention of Rai, as modified by

Barton in order to provide a color-coding system in which the user applies color to text

with a pointing device, a key from a keyboard, or other input device.

With regard to claim 10, and the limitation of a keyboard for user entry of data

and control characters for controlling the software Rai discloses that the invention is

implemented through a software program (Col. 1: 63 – Col. 2: 2).

With regard to claim 11, and the limitation of a means for applying the selected

color as a background color to a selected letter or group of letters in the text, Rai

discloses this feature (Col. 1: 63 – Col. 2: 2). Rai does not disclose the step of applying

color to the background. However, Barton discloses the feature of background color, as

previously described.

With regard to claim 15, Rai, as modified by Barton, does not disclose a color-

coding menu including a series of colored boxes representing color-coding for

application to consonants in the text in words where consonant pronunciation is non-

standard. Rose teaches the use of an on-screen color palette (Col. 3: 25-37). Rose also

teaches that it is well known in the art to use color palettes containing series of colored

boxes for application of color to text and images (Figs. 2-5; Col. 1: 13-26). It would have

been obvious to one of ordinary skill in the art at the time of invention to incorporate

the teaching of Rose into the invention of Rai, as modified by Barton, in order to

provide a system in which the user may choose the colors for consonants which have

non-standard pronunciation. With this feature, a user would be able to select a color

that the user likes, and use it to detect the aforementioned consonants in text.

With regard to claim 16, Rai, as modified by Barton, does not disclose displaying

alternative color-coding option models for consonant pronunciation on the screen in

response to user selection of a consonant having a non-standard pronunciation,

whereby the user can select the appropriate coding from the coding option model. Rose

teaches a color palette containing three color-coding options including achromatic, web-

safe chromatic, and non web-safe chromatic (Col. 1: 60 – Col. 2: 6). Additionally, Rose

teaches that it is well known in the art to include two color-coding options in a color

palette (Col. 1: 48-53). It would have been obvious to one of ordinary skill in the art at

the time of invention to incorporate the teaching of Rose into the invention of Rai, as

modified by Barton in order to provide a system in which the user may choose

alternative color coding options for a consonants containing non-standard

pronunciations.

With regard to claim 23, and the limitation of a dictionary of common words

converted into corresponding color-coded words in the data base of a computer, Rai

discloses using dictionary and word processing software (Col. 7: 57 – Col. 8: 6), as

previously described.

Rai discloses a color-coding menu for providing information to a user on the

proper color-coding to be used for letters based on pronunciation (Fig. 8). Rai also

discloses that the invention can be displayed on a computer monitor (Col. 9: 58-67; Col.

7: 57 – Col. 8: 6).

With regard to the limitation of entering a conventional text passage into the

computer, Rai discloses entering text into a computer (Col. 1 67 – Col. 2: 2; Col. 9: 61-67).

Rai discloses a color-coding menu (Fig. 8). Rai does not disclose displaying the

passage on the computer display screen adjacent the color-coding menu. Rose teaches

text box adjacent a color menu (Fig. 11g). It would have been obvious to one of ordinary

skill in the art at the time of invention to incorporate the teaching of Rose into the

invention of Rai, as modified by Barton, in order to provide a color-coding system with

which the user may view the text passage adjacent the color-coding menu. This would

give the user a quick reference as to how the color-coding will apply to the typed

passage.

With regard to the limitation of searching the dictionary for any color-coded

words corresponding to words entered in the text, and converting all words found in

the passage which are in the dictionary into the corresponding color-coded word, Rai

teaches the incorporation of dictionary software, as previously described.

With regard to the limitation of displaying the color-coded words in the passage

on the screen along with the non color-coded words not found in the dictionary, Rai

discloses display of the color-coded passage (Fig. 10). With regard to the limitation of

display of the non color-coded words not found in the dictionary, Rai discloses

incorporation of dictionary software, as previously described.

With regard to the limitation of selecting, for each non color-coded word, an

appropriate color coding from the menu for each letter or group of letters in the word

apart from consonants having only one possible pronunciation of that letter or group of

letters in the respective non-coded word, and applying the selected color coding to the

selected letters or groups of letters in the word, Rai discloses this feature (Col. 3: 66 –

Col. 6: 3).

With regard to the limitation of displaying the color-coded passage on the screen

after each word has been color-coded, Rai discloses display of a color-coded passage

(Figs. 1, 5-7, 9, 10).

With regard to claim 24, Rai teaches incorporating dictionary and word

processing software (Col. 7: 57 – Col. 8: 6), as previously described.

With regard to claim 25, and the limitation of a means for adding words having

the same spelling but more than one possible pronunciation to the dictionary, the

invention of Rai is implicitly capable of being used to apply color-coding to two words

having the same spelling, but different pronunciations. Rai teaches incorporating

dictionary and word processing software (Col. 7: 57 – Col. 8: 6), as previously described.

With regard to claim 26, Rai discloses a color-coding menu comprising a series of

vowel and vowel-like sounds and associated colors. With regard to the limitation of a

series of coding colors for coding of consonants having more than one possible

pronunciation depending on the word in which they occur, Rai discloses using symbols

to denote the pronunciation of consonants (Col. 4: 39-54), as described above.

With regard to claim 27, Rai discloses at least single phoneme vowels and vowel-

like sounds being associated with colors whose color name contains the same phoneme

as the vowel or vowel-like sound that it represents (Col. 3: 66 – Col. 6: 3).

With regard to claim 28, Rai discloses all vowels and vowel-like sounds are

associated with colors whose color name contains the same sound as the vowel or

vowel-like sound it represents (Col. 3: 66 – Col. 6: 3).

With regard to claim 29, Rai discloses double phoneme vowels and vowel-like

sounds represented by a first color in the background and a second color in the letter

itself (Note the white background, and colored letters in Figs. 1, 5-7, 10).

With regard to claim 30, Rai discloses this feature, as previously described.

With regard to claim 31, and the limitation of displaying in the color coded text

all consonant letters which have only one possible pronunciation in the standard color

assigned to the original, uncoded text, Rai discloses displaying all consonants in black

(Col. 4: 14-16).

6.   Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rai

in view of Rose, as applied above, and further in view of Barton.

With regard to claim 32, Rai discloses the step of converting uncoded words in

the text into color-coded text comprising selecting letters corresponding to vowels or

vowel-like sounds in words and applying a color to each selected letter or group of

letters based on the sound produced by the letter or letters when the word is

pronounced (Table 1; Fig. 6; Col. 4: 60 – Col. 5: 3). Rai does not disclose applying the

color to the background. Barton teaches this feature, as described above.

With regard to claim 33, Rai discloses applying a second color to each letter or

letters having a diphthong sound (Col. 3: 13-15, 36-40). Rai does not disclose applying a

background color whose name contains the sound it represents. Barton discloses the

feature of using background colors corresponding to the type of sound an element

represents, as described above.

With regard to claim 34, and the limitation of selecting consonants having non-

standard pronunciations in the text and applying a selected color to each selected

consonant based on its pronunciation in the word in which it occurs, Rai discloses

applying symbols to the consonants, as previously described.

With regard to claim 35, and the limitation of displaying non-standard

pronunciation coding options to a user on selection of a consonant in the text to enable

the user to select the appropriate color coding for the selected consonant based on the

pronunciation in the word in which it occurs, Rai discloses coding options for vowels

(Col. 2: 56 – Col. 4: 13). With regard to the limitation of color-coding options for

consonants, Rai discloses adding symbols to consonants, based on their pronunciation,

as described above.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joshua D. Crabtree whose telephone number is 571-272-8962.

The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert P. Olszewski can be reached on (571) 272-6788. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

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would like assistance from a USPTO Customer Service Representative or access to the

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D. Crabtree
June 15, 2006

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